PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 528 (Coastal Hwy) and 67th Street in Ocean City, Maryland. MD 528 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA six (6) phase, semi-traffic-actuated mode. There will be an exclusive/permissive left turn phase for both the north and southbound movements of MD 528. The MD 528 through movements will operate concurrently. The 67th Street movements will operate concurrently with an actuated pedestrian movements across the north and south legs of the intersection.

This signal is to be incorporated into the MD 528 traffic signal system. The existing interconnect cable between the 65th and 70th Street's intersections shall be pulled back from 70th Street and run to this new intersection. A new interconnect cable is to be run back up to 70th Street.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, telemetry module, and video detection equipment housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. S.H.A. furnished equipment material.

None.

B. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
7	CY	205	Test Pit Excavation
1	EA	818	21 ft. steel twin mast arm pole with monocurve 50 ft. and 60 ft. mast arms.
1	EA	818	16.5 ft. steel twin mast arm pole with monocurve 50 ft. and 60 ft. mast arms.
2	EA	818	10 ft. steel pedestal pole with break away transformer base
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, telemetry equipment, and video detection equipment (Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650).
4	EA	---	Video camera detection with cable (per manufacture specification). (2 - 350 ft., 2 - 200 ft.) for mast arm mounting.
8	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head for mast arm mounting and tunnel visors.
2	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable black faced traffic signal head for mast arm mounting and tunnel visors.
2	EA	814	12 in./8 in., one-way, five section (12 in. YA, GA/ 8 in. R,Y,G) adjustable black faced traffic signal head for mast arm mounting and tunnel visors.
2	EA	814	12 in., one-way, two section (symbolic DW, WK) adjustable pedestrian signal head for pole mounting and cut-away visors.
2	EA	814	12 in., one-way, two section (symbolic DW, WK) adjustable pedestrian signal head for post top mounting and cut-away visors.
2	EA	813	36 in. x 42 in. R 10-12 sign for mast arm mounting.
1	EA	813	30 in. x 36 in. R 3-5(R) sign for mast arm mounting.
2	EA	813	30 in. x 36 in. R 3-14(Mod) sign for mast arm mounting.
4	EA	813	16 in. x Var. D-3(1) Dual Faced sign for under mast arm mounting.
2	EA	813	18 in. x 24 in. R 4-7 sign for ground mounting.
4	EA	817	Pedestrian pushbutton assembly with pushbutton sign.
5	EA	811	Handhole.
120	LF	810	1-conductor electrical cable (No. 4 A.W.G.) (3 pieces).
550	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
600	LF	810	3-conductor electrical cable (No. 14 A.W.G.).
120	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1800	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
1500	LF	810	12-Pair voice grade self supporting telemetry cable (No. 19 A.W.G.)
400	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
20	LF	805	2 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
10	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
25	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
250	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - slotted in roadway.
12	CY	801	Concrete foundation for traffic signal equipment.
5	EA	804	Ground rod - ¾in. diameter x 10 ft. length.
1	EA	807	Electrical utility service equipment (120/240 V, one phase, three wire system) for a type B-11 overhead electrical service.
1	EA	549	HAPPTPM symbol - white "ONLY".
2	EA	549	HAPPTPM symbol - white "Right Arrow".
500	LF	549	5 in. wide thermoplastic pavement marking - white.
300	LF	549	5 in. wide thermoplastic pavement marking - yellow.
450	LF	549	12 in. wide HAPPTPM - white for crosswalk.
80	LF	549	24 in. wide HAPPTPM - white for stop line.
2	EA	---	Cut, clean, cap and regalvanize mast arm.
300	LF	---	Remove existing pavement marking by grinding.
200	SF	---	Remove/Replace sidewalk (may need to include ADA Ramps).
Lump Sum	LS	---	Removal/ Trimming of shrubbery.
Lump Sum	LS	---	Removal/relocation of overhead interconnect cable.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

CONTACT LIST

The contact persons for District #1 are as follows:

Mr. Gene Cofield
Assistant District Engineer - Traffic
410-543-6715

Mr. Bruce Poole
Assistant District Engineer - Utility
410-543-6715

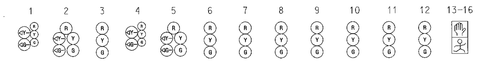
Mr. James Wright
Assistant District Engineer - Maintenance
410-543-6715

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Conectiv Power Delivery
Chris Smith
410-860-6036

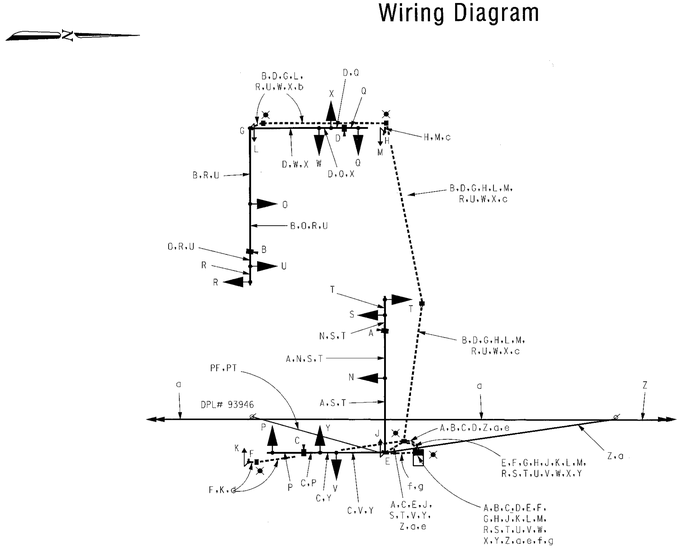
The Verizon Communications Representative is:
Hal Curtis
410-224-9500

Phase Chart



	1	2	3	4	5	6	7	8	9	10	11	12	13-16	
Phase 1 & 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	DW	
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6														
Phase 1 & 6	G G	G G	G	R	R	R	R	R	R	R	R	R	DW	
1 Change	G Y	G Y	G	R	R	R	R	R	R	R	R	R	DW	
Phase 2 & 5	R	R	R	G G	G G	G	R	R	R	R	R	R	DW	
5 Change	R	R	R	G Y	G Y	G	R	R	R	R	R	R	DW	
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	
Phase Alt 4 & Alt 8	R	R	R	R	R	R	G	G	G	G	G	G	WK	
Ped Clearance	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	
Alt 4 & Alt 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	

Wiring Diagram



A, B, C, D } Video Camera Detection Cable (per manufacture Specifications)

E, F, G, H } 2-Conductor Electrical Cable (No. 14 A.W.G.)

J, K, L, M } 3-Conductor Electrical Cable (No. 14 A.W.G.)

N, O, P, Q } 5-Conductor Electrical Cable (No. 14 A.W.G.)

R, S, T, U, V, W, X, Y } 7-Conductor Electrical Cable (No. 14 A.W.G.)

Z — 12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (67th Street - 70th Street Run)

a — Existing Interconnect Cable (65th Street - 67th Street Run)

b, c, d, e, f } Bare Copper Ground Wire (No. 6 A.W.G.)

g — 3-Wire (No. 4 A.W.G.) for Traffic Signal Electrical Service

PF — Proposed Overhead Electrical Service By Conectiv

PT — Proposed Overhead Telephone Service By Verizon

✱ — Proposed Grounding Rod

The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 528 (Coastal Hwy) at 67th Street

DRAWN BY:	J. Dirndorfer	F.A.P. NO.	N/A	TS NO.	SHEET NO.
CHECKED BY:	M. Rucker	S.H.A. NO.	BW996M82	4296 GI	
SCALE:	N/A	COUNTY:	Worcester	T.I.M.S. NO.	2 OF 2
DATE:	January 23, 2004	LOG MILE:	23052304.42	G029	

Application.dgn 01/23/2004